Fall 2016 Levee Maintenance Deficiency Summary Report Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

RD0827	Overall LMA Rating	Total LMA Miles	A * Overall LMA Threshold Percent is less than 10.00%, however, U Rated Miles are present, so the Overall						
Reclamation District No. 0827 Elkhorn	M *	4.12	Rating is M	reserit, so i	irie Overaii	LIVIA			
			nce Deficiancy		Enforce	ement	Design & System		
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles		Obsole M Miles	U Miles	
Earthen Levee									
Encroachments					0.81				
Animal Control	0.04		0.04	0.97%					
Slope Stability	0.02		0.02	0.49%					
Erosion / Bank Caving	0.02	0.02	0.10	2.43%					
Crown Surface / Depressions / Rutting	0.01		0.01	0.24%					
Supplemental									
DWR UCIP Field Study					0.05	0.01			
LMA Totals:	0.09	0.02	0.17	4.12% *	0.86	0.01	0.00	0.00	
Unit No. 01 Sacramento River RB	Overall Unit Rating	Total Unit Miles	U Rated Mile	Threshold Perceres are present, so					
RD0827	M *	1.34	instead of A.						
		Maintena	nce Deficiancy		Enforc	ement		& System scence	
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles		
Earthen Levee									
Encroachments					0.30				
Animal Control	0.01		0.01	0.75%					
Slope Stability	0.01		0.01	0.75%					
Erosion / Bank Caving	0.02	0.01	0.06	4.47%					
Supplemental	1		I			T			
DWR UCIP Field Study					0.02				
Unit Totals:	0.04	0.01	0.08	5.97% *	0.32	0.00	0.00	0.00	
Unit No. 02 Yolo Bypass LB	Overall Unit Rating	Total Unit Miles	U Rated Mile	Threshold Percer es are present, so					
RD0827	M * 2.78 instead of A.					Danier (0		
Rated Item			nce Deficiancy	iciancy		Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles	
Earthen Levee Encroachments					0.51				
Animal Control	0.03		0.03	1.08%	0.01				
Slope Stability	0.03		0.03	0.36%					
Erosion / Bank Caving	0.01	0.01	0.01	1.44%					
Crown Surface / Depressions / Rutting	0.01	0.01	0.04	0.36%					
Supplemental	0.01		0.01	0.30%					
ouppieriiciitai									
DWR UCIP Field Study					0.03	0.01			

LMA District Cover Sheet

Fall 2016 Levee Inspection Results

Reclamation District No. 0827 Elkhorn

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)					
† Overall LMA Rating (Fall Only)			M *						
** Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating. * Overall LMA Threshold Percent is less tha 10.00%; however, U Rated Miles are press so the Overall LMA Rating is M instead of									
† SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.									
	<u>FALL INSPECTIONS:</u> The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indiction of risk.								
Comments									

Unit Cover Sheet

Fall 2016 Levee Inspection Results

Reclamation District No. 0827 Elkhorn

l	Waterway	Bank	Unit Miles
	Unit No. 01 Sacramento River	Right	1.34

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			M *	
Date of Inspection	4/19/2016 - 4/19/2016		10/31/2016 - 10/31/2016	
DWR Inspector	Jai Lor		Oleg Yakimov	
Accompanied By	Dan Ramos RD0827		Dan Ramos RD0827	

^{*} Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.34	10/31/2016 10/31/2016	Oleg Yakimov

		Dating **	Δ.	Issue No.		_	
LM Start		Rating **	Α	issue ivo.		5	
LM End		Issue Type +	Ma	Location *		N/A	
Category	Earthen L	evee		GPS La	atituc	e/Longitude	
Calegory				Start		End	
Operations & Maintenance			0		0		
item	Manuals			٥		0	
DWR ID	DWR_RD0	827_01_s _ 201					
		Comn	nent Cod	de			
		Inspecto	or Comm	nent			
RD 827 ha	s a copy c	f the levee m	anuals.				

No Photos

LM Start		Rating **	Α	Issue No.		7		
LM End		Issue Type +	Ma	Location *		N/A		
Category	Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End		
Item	Emergency Supplies & Equipment				0		0	
пеш					0		0	
DWR ID	DWR_RD0827_01_s _ 2013_7							
		Comn	nent Cod	de				
Inspector Comment								
RD 827 shares a maintained stockpile of Flood Response Material with								

No Photos

LM Start		Rating **	Α	Issue No.		9		
LM End		Issue Type +	Ма	Location *		N/A		
Category	Earthen L	evee		GPS La	atituc	le/Longitude		
Calegory		Start		End				
Item	Flood Preparedness & Training				0		0	
item			0		0			
DWR ID	DWR_RD0827_01_f _ 2014_9							
		Comn	nent Cod	le				
Inspector Comment								
RD 827 works jointly with RD 784 on Flood Preparedness and Training.								

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

RD 784.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.34	10/31/2016 10/31/2016	Oleg Yakimov

LM Start	0.00	Rating **	М	Issue No.		215	
LM End	0.00	Issue Type +	En	Location *		N/A	
Category	Suppleme	ental		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	DWR UCI	IP Field Study		38.6612	10°	38.661210	0
пеш				-121.613030 °		-121.613030 °	
DWR ID							
Comment Code							

Comment Code

Inspector Comment

FS_ID:39703 DS_ID:21163 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Not Found

UCIP Comments: No pipe was found only what appears to be an abandoned pump house on landward side. Need to contact owner to

determine status of crossing.

FIELD_STRUCT_DESC: 30-inch steel pipe through the levee, 9.1 feet below the crown. Pump in pumphouse on landward side not waterward side as mentioned in desk study. (USACE-1955). This entry matches the Drainage or Irrigation Structure referenced in O&M manual (RM 69.50)

FS Date: 3/18/2014

No Photos



View of the stairs on the crown of the levee looking downstream. Spring 2016.

LM Start	0.11	Rating **	М	Issue No.		10	
LM End	0.11	Issue Type +	En	Location *	CR		
Category Earthen Levee			GPS Latitude/Longitude				
Category			Start		End		
Item	Encroachments			38.674133°		38.674133°	
item				-121.629097 °		-121.629097 °	
DWR ID	DWR_RD0	827_01_s _ 201	6_10			·	
Comment Code							
ST : Stairway							

Inspector Comment

Railroad has put steps on the crown for the tourist train from the West City of Sac water plant. Stairs are not permitted and was placed this year Spring 2016.

Location LS: Land Side WS: Water Side

N/A: Not Applicable

: Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated

C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy Ob : Design & System Obsolescence

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.34	10/31/2016 10/31/2016	Oleg Yakimov

	0.04	Dating **	N 4	Issue No.		40			
LM Start	0.24	Rating **	М	issue ivo.		12			
LM End	0.53	Issue Type +	En	Location *	CR				
Category	Earthen L	evee		GPS La	atitud	le/Longitude			
Category				Start		End			
Item	Encroachments			38.6727	49°	38.669781°			
пеш					33 °	-121.623587 °			
DWR ID DWR_RD0827_01_s _ 2016_12									
		Comn	nent Cod	de					
MA : Mate	rial								
	Inspector Comment								
RR rails and ties on the levee crown.									



View of the rails on the crown of the levee looking downstream. Spring 2016.

	0.00	Poting **		Issue No.		400	
LM Start	0.28	Rating **	U	issue ivo.		109	
LM End	0.28	Issue Type +	Ma	Location *	WS		
Category Earthen Levee				GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Erosion / Bank Caving				06°	38.672406°	
пеш				-121.626828 °		-121.626828°	
DWR ID DWR_RD0827_01_s _ 2014_109							
		Comn	nent Cod	de			
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spe	ction.	
		Inspecto	or Comm	nent			

LM Start	0.28	Rating **	U	Issue No.	109 (cont)
LM End	0.28	Issue Type +	Ma	Location *	WS

Photo 1 of 2 : FA_2016_RD0827_187_109_20160913_00008.jpg



View of the erosion on the shoulder of the waterward side of the levee looking downstream. Spring 2016.

Photo 2 of 2: FA_2016_RD0827_187_109_20161031_00013.jpg



Updated view of the erosion site. WS slope. Fall 2016.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.34	10/31/2016 10/31/2016	Oleg Yakimov

LM Start	0.51	Rating **	М	Issue No.		13		
LM End	0.51	Issue Type +	Ma	Location *		LS		
Category Earthen Levee				GPS La	atitud	e/Longitude		
Calegory				Start		End		
Item	Erosion / I	Bank Caving		38.6699	29°	38.669929°		
пеш				-121.623776°		-121.623776 °		
DWR ID DWR_RD0827_01_s _ 2016_13								
		Comn	nent Cod	le				
E2 : Schedule repair of erosion site prior to the next inspection.								
		Inspecto	or Comm	ent				
Rills cause	ed by rain.							

LM Start	0.51	Rating **	М	Issue No.	13 (cont)
LM End	0.51	Issue Type +	Ma	Location *	LS

Photo 1 of 2: FA_2016_RD0827_187_13_20160913_00005.jpg

View of the erosion on the landward side of the levee looking downstream. Spring 2016.

Photo 2 of 2: FA_2016_RD0827_187_13_20161031_00014.jpg



Updated view of runoff erosion site. LS slope. Fall 2016.

LM Start	0.61	Rating **	A/W	Issue No.		22	
LM End	0.92	Issue Type +	Ма	Location *	WS		
Category Earthen Levee				GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Vegetatio	n		38.6688	373°	38.665750°	
item				-121.622513 °		-121.618523°	
DWR ID DWR_RD0827_01_s _ 2012_22							
	Comment Code						
V8 : Enviro	onmental F	Requirements.					
		Inspecto	or Comm	nent			
		ороск					



Revegetation site spring 2012.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.34	10/31/2016 10/31/2016	Oleg Yakimov

LM Start	0.61	Rating **	A/W	Issue No.		22 (cont)
LM End	0.92	Issue Type +	Ma	Location *		WS
	Earthen L	•••		GPS La	atitud	e/Longitude
Category				Start		End
Item	Vegetatio	า		38.6688	73 °	38.665750°
item				-121.6225	13 °	-121.618523°
DWR ID DWR_RD0827_01_s _ 2012_22						
		Comn	nent Cod	de		
V8 : Enviro	nmental F	Requirements.				
		Inspecto	or Comm	nent		

Photo 2 of 2: FA_2016_RD0827_187_22_20160913_00007.jpg



View of the revegetation site on the waterward side of the levee looking downstream. Fall 2015.

LM Start	0.73	Rating **	М	Issue No.		214
LM End	0.73	Issue Type +	En	Location *		WS
Category	Suppleme	ental		GPS Latitude/Longitude		
Category				Start		End
Item	DWR UCI	P Field Study	38.6677	31°	38.667731 °	
item				-121.6209	92 °	-121.620992°
DWR ID						

Comment Code

Inspector Comment

FS_ID:38983 DS_ID:21147 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Need to contact owner to obtain additional information for this crossing. This crossing does not match original description listed in desk study. Need to coordinate with owner to obtain permit number authorizing modification.

FIELD_STRUCT_DESC: 14-inch (not 16-inch as listed in desk study) pipe through the levee, 10.3 feet below the crown. 10-inch bypass pipe on waterward side. Siphon breaker on landward (not waterward) shoulder. Pump on platform (not mounted on 48-inch concrete pipe as described in desk study) on waterward bank. Metal (not wooden) walkway to the pump. 3/4-inch conduit through levee at unknown depth. FS Date: 3/18/2014

Photo 1 of 2: UCIP_FA_2016_38983_59737.jpg



Platform for pump located on waterward side.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.34	10/31/2016 10/31/2016	Oleg Yakimov

LM Start	0.73	Rating **	М	Issue No.		214 (cont)	
LM End	0.73	Issue Type +	En	Location *	WS		
Category	Suppleme	ental	GPS Latitude/Longitude				
Calegory				Start		End	
Item	DWR UCI	P Field Study		38.66773	31 °	38.667731 °	
пеш				-121.62099	92 °	-121.620992 °	
DWR ID							
	Comment Code						

Inspector Comment

FS_ID:38983 DS_ID:21147 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Need to contact owner to obtain additional information for this crossing. This crossing does not match original description listed in desk study. Need to coordinate with owner to obtain permit number authorizing modification.

FIELD_STRUCT_DESC: 14-inch (not 16-inch as listed in desk study) pipe through the levee, 10.3 feet below the crown. 10-inch bypass pipe on waterward side. Siphon breaker on landward (not waterward) shoulder. Pump on platform (not mounted on 48-inch concrete pipe as described in desk study) on waterward bank. Metal (not wooden) walkway to the pump. 3/4-inch conduit through levee at unknown depth. FS Date: 3/18/2014

Photo 2 of 2: UCIP_FA_2016_38983_59736.jpg



Pipe visible on waterward side.

LM Start	0.96	Rating **	М	Issue No.		213		
LM End	0.96	Issue Type +	Ma	Location *	WS			
Category	Earthen L	evee		GPS Latitude/Longitude				
Category				Start		End		
Item	Slope Sta	bility		38.6653	07°	38.665307°		
пеш				-121.6179	82 °	-121.617982°		
DWR ID DWR_RD0827_01_s _ 2015_213								
	Comment Code							

S1: Repair slope instability.

Inspector Comment





View of the slope instability on the waterward side of the levee looking downstream. Spring 2016.

CR : Crown

: Acceptable Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected

+ Issue Type Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En: Enforcement

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.34	10/31/2016 10/31/2016	Oleg Yakimov

LM Start	0.97	Rating **	М	Issue No.		8
LM End	0.97	Issue Type +	Ma	Location *		WS
Cotogony	Earthen L	evee		GPS La	atitud	le/Longitude
Category				Start		End
Item	Animal Co	ontrol		38.6652	213°	38.665213°
пеш				-121.617886 °		-121.617886°
DWR ID DWR_RD0827_01_f _ 2015_8						
		Comn	nent Cod	de		
A3 : No ro compact o		le, but rodent rows.	burrows	visible; ne	ed to	backfill and
		Inspecto	or Comm	nent		



View of the rodent hole on the waterward side of the levee looking downstream. Fall 2015.

LM Start	1.12	Rating **	М	Issue No.		3		
LM End	1.12	Issue Type +	Ma	Location *		WS		
Category	Earthen L	,,	····a	GPS Latitude/Longitude				
Category				Start		End		
Item	Erosion / I	Bank Caving		38.6635	42°	38.663542°		
item				-121.616056 °		-121.616056°		
DWR ID DWR_RD0827_01_f _ 2016_3						,		
		Comn	nent Cod	de				
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spec	ction.		
			_					
	Inspector Comment							



View of erosion on crown continuing to WS slope. Fall 2016.

Unit Cover Sheet

Fall 2016 Levee Inspection Results

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles
Unit No. 02 Yolo Bypass	Left	2.78

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			M *	
Date of Inspection	4/19/2016 - 4/19/2016		10/31/2016 - 11/7/2016	
DWR Inspector	Jai Lor		Oleg Yakimov	
Accompanied By	Dan Ramos RD0827		Dan Ramos RD0827	

^{*} Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov

LM Start	0.02	Rating **	U	Issue No.		10
LM End	0.02	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Erosion / I	Bank Caving		38.6765	49°	38.676549°
item				-121.6427	03°	-121.642703°
DWR ID DWR_RD0827_02_f _ 2015_10						
		Comn	nent Cod	de		
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spec	ction.
		Inspecto	or Comm	nent		
It seems lil an erosion		ne poured wat pe.	er onto t	he levee sl	ope :	and caused

LM Start	0.02	Rating **	U	Issue No.	10 (cont)
LM End	0.02	Issue Type +	Ma	Location *	LS

Photo 1 of 2 : FA_2016_RD0827_188_10_20160913_00004.jpg

View of the erosion on the landward side of the levee looking downstream. Fall 2015.

Photo 2 of 2: FA_2016_RD0827_188_10_20160913_00005.jpg



It seems someone poured a large amount of water over the levee slope and caused the erosion. Fall 2015.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov

LM Start	0.02	Rating **	М	Issue No.		2	
LM End	0.52	Issue Type +	En	Location *		LS	
Earthen Levee			GPS L	atitud	le/Longitude		
Category				Start		End	
Item	Encroach	38.6764	140°	38.669401 °			
пеш				-121.642747 °		-121.641417°	
DWR ID DWR_RD0827_02_f _ 2012_2							
		Comn	nent Cod	de			
DT : Ditch							
		Inspecto	or Comm	nent			

Photo 1 of 1: FA_2016_RD0827_188_2_20160913_00001.jpg



View of the ditch on the landward side of the levee looking downstream. Fall 2015.

LM Start	0.11	Rating **	М	Issue No.		7	
LM End	0.11	Issue Type +	Ма	Location *		LS	
Category Earthen Levee				GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Animal Control			38.6753	26°	38.675326°	
item				-121.643042 °		-121.643042 °	
DWR ID DWR_RD0827_02_f _ 2016_7							
		Comn	nent Cod	de			
A1 : Exteri	minate rod	ents and back	fill and o	compact or	grou	t burrows.	
		Inspecto	or Comm	nent			

Photo 1 of 1 : FA_2016_RD0827_188_7_20161031_00021.jpg



Rodent holes on LS levee slope. Fall 2016.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov

LM Start	0.64	Rating **	М	Issue No.		390	
LM End	0.64	Issue Type +	Ma	Location *		WS	
Earthen Levee			GPS La	atitud	le/Longitude		
Category				Start		End	
Item	Animal Co		38.6678	880°	38.667880 °		
пеш		-121.6405	87°	-121.640587 °			
DWR ID DWR_RD0827_02_s _ 2015_390							
		Comn	nent Cod	le			
A3 : No roccompact o		le, but rodent rows.	burrows	visible; ne	ed to	backfill and	
		Inspecto	or Comm	ent			



View of the burrow on the water ward side of the levee looking upstream.

Spring 2015.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov

LM Start	1.00	Rating **	М	Issue No.		394		
LM End	1.00	Issue Type + En		Location *		Location *		WS
Supplemental				GPS Latitude/Longitude				
Category				Start		End		
ltom	DWR UCI	P Field Study		38.6634	35 °	38.663485 °		
Item		-121.6370	21 °	-121.637021 °				
DWR ID						·		

Comment Code

Inspector Comment

FS_ID:50065 DS_ID:24844 EP_NO: 17403

Repair Type: Non-Urgent Crossing Status: Indicator Found

UCIP Comments: 9/27/2016 Need to coordinate with Greg Lucas (gregory.lucas@crc.com) with California Resources Corporation to determine if line will be brought online. Crossing was downgraded from Urgent to Non-Urgent--new owner has not brought the pipe online. New owner will need to update permit name and if line becomes active markers will be required per Title 23. (DWR UCIP omagana)9/02/2016 Meet with Jimmy Preston from California Resources Coportation at site. Alignment of crossing was confirmed (new location is approximately 290 feet upstream from previous point)-report has been updated. Pending action -- Name Change (DWR UCIP - omagana)9/01/2016 Email was sent to Greg Lucas from California Resources Corportation with an updated UCIP detailed report and Central Valley Flood Protection Board (CVFPB) name change form. New owner will need to update permit information with the CVFPB to be compliant with Title 23 requirements. (DWR UCIP omagana)8/31/2016 New owner--California Resources Corporation. Gas line is currently not in use. Meet with Greg Lucas, Assistant Production Coordinator from California Resources Corporation and Steve Stein from Noble Methan, Inc. to clarify current status of crossing and determine crossing alignment. Gas well is part of the gas line apppurtenances. Gas line alignment is still pending--California Resources Corportation will send out someone to confirm alignment. Crossing is missing markers, if line becomes active markers will be needed on both the WS and LS to comply with Title 23--encouraged owner to contact CVFPB. (DWR UCIP - omagana)8/30/2016 Coordinating with AA Production Services, Inc. to determine location of where crossing goes through levee. It appears that the gas well located on LS is not part of this crossing. (DWR UCIP - omagana)8/04/2016 Meet with Bill Mattos, representative of RD 827, and he took me to the gas well visible from levee crown. Mr. Mattos was unable to confirm if gas well and pipeline that goes through the levee were connected.3/18/2014 No markers visible on either banks. Need to contact owner to determine status of crossing. Need date of last inspection and confirmation that crossing is still in operable condition.

(DWR UCIP - omagana)
FIELD_STRUCT_DESC: [Hanks 34-2] 2.375-inch steel natural gas pipe through the levee, 30 feet below the crown and under (bored) Tule Canal. Gas well is located on the landside (LS) approximately 994 feet from levee crown. California Resources Corporation aquired AA Production Services, Inc. The new owner of the 2.375-inch gas pipe is California Resources Corporation. (Permit No. 17403, 2001 - AA Production Services, Inc.)



View of WS--Tule Canal.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov



View of levee crown at crossing--yellow flag markers visible on both WS and LS shoulder.

LM Start	2.01	Rating **	М	Issue No.		9	
LM End	2.01	Issue Type +	Ма	Location *		CR	
Category Earthen Levee			GPS La	atituc	le/Longitude		
Category				Start		End	
Item	Crown Su	ssions /	38.6512	270°	38.651270°		
item	Rutting	-121.626661 °		-121.626661 °			
DWR ID DWR_RD0827_02_f _ 2016_9							
		Comn	nent Cod	de			
C2 : Repa	ir depressi	ons or ruts in	the crow	n or slope.			
			_				
		Inspecto	or Comm	nent			



View of crown depression site. Fall 2016.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov

LM Start	2.03	Rating **	U	Issue No.	393			
LM End	2.03	Issue Type +	En	Location *	CR			
Supplemental				GPS Latitude/Longitude				
Calegory	iy			Start		End		
Item	DWR UCI	P Field Study		38.65105	52 °	38.651052°		
пеш				-121.62650)1 °	-121.626501 °		
DWR ID								
	Comment Code							

Inspector Comment

FS_ID:50030 DS_ID:21159 EP_NO: 15904 Repair Type: Urgent

Crossing Status: Indicator Found

UCIP Comments: 8/31/2016 Meet with Greg Lucas, Assistant Production Coordinator from California Resources Corporation and Steve Steim from Noble Methan, Inc. to discuss the status of a different line upstream. Mr. Steve Steim was aware of the 3-inch line by Two Bay Petroleum as known as a PG&E old pipe at this location. According to Steve Stein the appurtenances previously located on the landside have been removed and the 3-inch line abandoned. Need to contact owner to confirm status of crossing. If crossing is no longer in use the owner will need to coordinate with CVFPB to comply with Title 23. (DWR UCIP - omagana)8/04/2016 No markers found on either WS or LS. Need to coordinate with owner to determine status of crossing. (DWR UCIP - omagana)3/10/2015 Sign missing on WS and LS. Need to confirm status of crossing with permitee. Appears abandoned. (DWR UCIP - omagana)

FIELD_STRUCT_DESC: 3-inch steel pipe through the levee, 20 feet below the crown. Sign on waterside (WS) (not found 2015). Yellow pipe visible east of ditch approximately 150 feet off landside (LS) toe. Contact Number 415-459-3445 for Two Bay Petroleum also referred as Pacific Energetics, Inc. (Permit No. 15904, 1992 - Two Bay Petroleum) FS Date: 8/4/2016

LM Start	2.03	Rating **	U	Issue No.	393 (cont)
LM End	2.03	Issue Type +	En	Location *	CR

Photo 1 of 2 : UCIP_FA_2016_50030_73360.jpg

View of LS.

Photo 2 of 2: UCIP_FA_2016_50030_73361.jpg



Pipe visible east of ditch approximately 150 ft off LS toe.

* Location
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating
A: Acceptable N: Not Inspected/Rated M: Ma: Maintenance Deficiancy
C: Corrected Ob: Design & System Obsolescence
U: Unacceptable A/W: Acceptable but Monitor & Maintain

** Rating
A: Acceptable M: N: Not Inspected/Rated M: Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov

LM Start	2.18	Rating **	M	Issue No.		388	
LM End	2.18	Issue Type +	Ma	Location *		LS	
Earthen Levee				GPS La	atitud	e/Longitude	
Category				Start		End	
Item	Animal Co		38.6491	08°	38.649108 °		
пеш	-121.62				96°	-121.625296°	
DWR ID	DWR_RD0	827_02_s _ 201	5_388				
		Comn	nent Cod	de			
A1 : Exterr	ninate rod	ents and back	fill and o	compact or	grou	t burrows.	
Inspector Comment							
	No evidence of rodent activity during Fall 2016 inspection, but the rodent hole is still present.						

No Photos

LM Start	2.29	Rating **	М	Issue No.		24	
LM End	2.29	Issue Type +	Ма	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Item	Slope Sta	bility		38.647703°		38.647703	0
пеш				-121.6244	50°	-121.624450	0
DWR ID	DWR_RD0	827_02_s _ 201	2_24				
		Comn	nent Coc	la			

S1: Repair slope instability.

Inspector Comment

Cracking along the levee slope is less than 200 feet in length. Monitor the slope for changes in cracking.

Photo 1 of 1: FA_2016_RD0827_188_24_20160913_00007.jpg



A bulge in the levee slope. Photo fall 2012.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov

LM Start	2.73	Rating **	М	Issue No.	392			
LM End	2.73	Issue Type +	En	Location *	LS			
Catagony	Supplemental			GPS Latitude/Longitude				
Calegory	Category			Start		End		
Item	DWR UCI	P Field Study		38.64192	22 °	38.641922°		
пеш				-121.62088	34 °	-121.620884°		
DWR ID	D							
Comment Code								

Inspector Comment

FS_ID:38984 DS_ID:21151 EP_NO: 3277

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Crossing appears to have been removed and replaced under maintenance back in 2008. No permit has been found-need to contact owner to obtain additional information about replacement. Landward slope sloughing--does not appear to be associated with crossing. Landward slope is being monitored by LMA. FIELD_STRUCT_DESC: 18-inch (not 20-inch as noted in desk study) steel drainpipe through the levee, 4.0 feet below the crown. Cutoff wall around pipe at center of levee. Siphon breaker on apex of pipe at waterward shoulder. Pump on pipe structure in drainage ditch at landward toe. Rock revetment on waterward slope. Pipe retained through levee and updates required to crossing under Permit No. 3277 (1960).

FS Date: 3/18/2014

LM Start	2.73	Rating **	М	Issue No.	392 (cont)
LM End	2.73	Issue Type +	En	Location *	LS



View of pipe visible on waterward side.

Photo 2 of 2: UCIP_FA_2016_38984_59768.jpg



View of landward side.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov

LM Start	2.75	Rating **	М	Issue No.	391			
LM End	2.75	Issue Type +	En	Location *	LS			
Catagony	Supplemental			GPS Latitude/Longitude				
Calegory	Category			Start		End		
Item	DWR UCI	P Field Study		38.6416	33 °	38.641633°		
пеш				-121.62072	25 °	-121.620725°		
DWR ID	₹ ID							
	Comment Code							

Inspector Comment

FS_ID:33032 DS_ID:21169 EP_NO: 5611

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Crossing appears to have been removed and replaced under maintenance back in 2008. No permit has been foundneed to contact owner to obtain additional information about replacement.

FIELD_STRUCT_DESC: [RD No. 827 Pumping Plant] 22-inch (not 24-inch as mentioned in desk study) steel drainpipe through the levee, 8.0 feet below the crown. CM cutoff wall around pipe at center of levee. Siphon breaker on waterward slope. Flap gate on waterward end. Pipe is exposed along waterward slope. (USACE-1955). This entry matches the Drainage or Irrigation Structure referenced in O&M manual (Station 3+75). Portion of pipe was removed and replaced, from landward side to waterward shoulder, under Permit No. 5611 (1968).

FS Date: 3/18/2014

LM Start	2.75	Rating **	M	Issue No.	391 (cont)
LM End	2.75	Issue Type +	En	Location *	LS

Photo 1 of 2: UCIP_FA_2016_33032_59778.jpg



Pipe exposed on waterward side.

Photo 2 of 2: UCIP_FA_2016_33032_59777.jpg



Pump station located on landward side.

Levee Inspection Report By Mile - Fall 2016

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.78	10/31/2016 11/07/2016	Oleg Yakimov

LM Start	2.76	Rating **	М	Issue No.		8
LM End	2.76	Issue Type +	En	Location *	WS	
Category	Earthen Levee					
	Lattien Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			38.641516°		38.641516°
				-121.620674 °		-121.620674°
DWR ID	DWR_RD0827_02_f _ 2016_8					
Comment Code						
PR : Prunings						
Inspector Comment						



Prunings on waterside slope. Fall 2016.